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AMENDMENTS TO THE CLAIMS:

1. (Currently Amended) An abutment for use in a bridge that interconnects a roadway extending along a centerline, said abutment comprising:

a facing wall extending substantially vertically from the ground and substantially perpendicular to the centerline;

a retaining enclosure formed in said facing wall, said retaining enclosure having a horizontally extending sill aligned substantially perpendicular to said centerline, said sill having first and second side walls forming opposing ends of said sill, and a rear wall interconnecting said side walls;

a first lateral containment element connected to said first sidewall;

a second lateral containment element connected to said second sidewall; and

said lateral containment elements each including a wing wall extending laterally away from the respective ends of said sill and laterally beyond the roadway, and mechanically stabilized earth filling gaps defined by spaces between the wing walls, the respective ends of the sill, and edges of the roadway, said lateral containment elements being designed to handle a seismic load that can be applied to said elements during a seismic event, said design incorporating a seismic coefficient, a total mass of the bridge, and frictional resistance to lateral displacement.

2-3. Canceled.

4. (Currently Amended) An abutment, as claimed in Claim 1, wherein:

each said lateral containment elements further include a plurality of piles having a first end contained in the [concrete block]abutment, and a second end extending downwardly and away from [said concrete block]the abutment.

5. Canceled.

6. (Previously Presented) An abutment, as claimed in Claim 1, further including:

a plurality of piles positioned around and spaced from a first face of the abutment to prevent scour.

7. (Original) An abutment, as claimed in Claim 6, wherein:

at least one of said plurality of piles is connected to a portion of the facing wall extending below the sill by mechanically stabilized earth.

8. (Previously Presented) An abutment, as claimed in Claim 1, further including:

a bearing member resting on said sill and extending laterally beyond said retaining enclosure through the respective side walls defining the opposing ends of said retaining enclosure, and said bearing member further extending into the lateral containment elements.

9. (Original) An abutment, as claimed in Claim 1, wherein:

said sill includes a slab of reinforced concrete.

10. (Original) An abutment, as claimed in Claim 1, wherein:

said facing wall includes a first portion extending below the sill and having first and second ends, second portions extending laterally away from said first and second ends of said first portion, facing wing extensions extending laterally away from each said second portions, and mechanically stabilized earth being emplaced behind said facing wall to support said facing wall along said first portion, said second portions, and said facing wing extensions.

11. (Currently Amended) An abutment for use in a bridge that interconnects a roadway extending along a centerline, said abutment comprising:

a facing wall extending substantially vertically from the ground and substantially perpendicular to the centerline;

a retaining enclosure formed in said facing wall, said retaining enclosure having a horizontally extending sill aligned substantially perpendicular to the centerline, said sill having first and second side walls forming opposing ends of said sill, and a rear wall interconnecting said side walls;

a first means for limiting lateral displacement of the bridge connected to one end of said sill;

a second means for limiting lateral displacement of the bridge connected to the other end of said sill; and

wherein said first and second means for limiting lateral displacement of the bridge are sized in design to satisfy seismic design standards including a design that incorporates a seismic coefficient α and a total mass of the bridge w_m, the seismic coefficient and total bridge mass in part determining a seismic horizontal load P_h which could be applied to said first and second means for limiting lateral displacement of the bridge during a seismic event.

12. (Previously Presented) An abutment, as claimed in Claim 11, wherein:

said first and second means for limiting lateral displacement of the bridge each include a wing wall extending laterally away from the respective ends of said sill and laterally beyond the roadway, and mechanically stabilized earth filling gaps defined by spaces between the wing walls, the respective ends of the sill, and edges of the roadway.

13. (Original) An abutment, as claimed in Claim 11, wherein:

said first and second means for limiting lateral displacement of the bridge each include a concrete reinforced block placed in abutting relationship with the corresponding end of the sill, said concrete block extending laterally away from the respective end of the sill.

14. (Original) An abutment, as claimed in Claim 13, wherein:

each said means for limiting lateral displacement of the bridge further include a plurality of piles having a first end contained in the concrete block, and a second end extending downwardly and away from said concrete block.

15. (Original) An abutment, as claimed in Claim 13, wherein:

each said concrete block has a lower portion extending below said sill thus forming a shear key.

16. (Previously Presented) An abutment, as claimed in Claim 11, further including:

a plurality of piles positioned around and spaced from a front face of the abutment to prevent scour.

17. (Original) An abutment, as claimed in Claim 16, wherein:

at least one of said plurality of piles is connected to a portion of the facing wall extending below the sill by mechanically stabilized earth.

18. (Previously Presented) An abutment, as claimed in Claim 11, further including:

a bearing member resting on said sill and extending laterally beyond said retaining enclosure through the side walls, and said bearing member further extending into the first and second means for limiting lateral displacement of the bridge.

19. (Original) An abutment, as claimed in Claim 11, wherein:

said sill includes a slab of reinforced concrete.

20. (Original) An abutment, as claimed in Claim 11, wherein:

said facing wall includes a first portion extending below the sill and having first and second ends, second portions extending laterally away from said first and second ends of said portion, facing wing extensions extending laterally away from each said second portions, and mechanically stabilized earth being emplaced behind said facing wall to support said facing wall along said first portion, said second portions, and said facing wing extensions.

21-23. Canceled.

24. (Currently Amended) An abutment for use in a bridge that interconnects a roadway extending along a centerline, said abutment comprising:

a facing wall extending substantially vertically from the ground and substantially perpendicular to the centerline;

a retaining enclosure formed in said facing wall, said retaining enclosure having a horizontally extending sill aligned substantially perpendicular to said centerline, said sill having opposing ends, and said retaining enclosure further including at least one wall extending perpendicularly from said sill;

a first lateral containment element connected to a first end of said sill;

a second lateral containment element connected to the other end of said sill;

said lateral containment elements each including a concrete reinforced block placed in abutting relationship with a corresponding end of the sill, said concrete block extending laterally away from the respective end of the sill; and

wherein said first and second lateral containment elements are sized and designed to satisfy seismic design standards including a design that incorporates a seismic coefficient and a total mass of the bridge, the seismic coefficient and total mass of the bridge in part determining a seismic horizontal load that can be applied to said first and second lateral containment elements during a seismic event.

25. (Previously Presented) An abutment, as claimed in Claim 24, wherein:

each said concrete block has a lower portion extending below said sill thus forming a shear key.

26. (Currently Amended) An abutment for use in a bridge that interconnects a roadway extending along a centerline, said abutment comprising:

a facing wall extending substantially vertically from the ground and substantially perpendicular to a centerline;

a retaining enclosure formed in said facing wall, said retaining enclosure having a horizontally extending sill, said sill having first and second ends;

means for limiting lateral displacement of the bridge at each end of said sill, said means for limiting lateral displacement including structure that extends laterally away from the ends of the sill,

said structure being designed to withstand forces caused by lateral displacement of the bridge during a seismic event, said design including one that incorporates a seismic coefficient and a total mass of the bridge, the seismic coefficient and total bridge mass in part determining a seismic horizontal load which is experienced during the seismic event.

27. (Previously Presented) An abutment, as claimed in Claim 26, further including:

a plurality of piles positioned around and spaced from a front face of the abutment to prevent scour.

28. (Currently Amended) An abutment system, comprising:

a facing wall extending substantially vertically from the ground;

a retaining enclosure formed in said facing wall, said retaining enclosure having a horizontally extending sill; [and]

first and second lateral containment elements connected to respective opposite ends of said sill; and

a plurality of piles [positioned around and] spaced from a front face of the abutment and spaced along a length of the front face, said piles being angularly emplaced thereby having a first end, and a second end in the ground positioned a greater distance from the front face to prevent scour.